

“My Water Quality” Website and Theme-Based Internet Portals Guidelines for Development

Focus and Content

- 1) The central theme of each portal should be phrased as a broad question, as presented on the My Water Quality home page (<http://www.waterboards.ca.gov/mywaterquality/>), shown below, or as a focus on a particular water body type under the heading of one of these main questions (e.g., a groundwater focus under the broader question of “Is our water safe to drink?” or a wetlands focus under the broader question of “Are our aquatic ecosystems healthy?”)

The screenshot shows the homepage of the My Water Quality website. At the top, there is a green header with the CA.GOV logo, the text "State of California ENVIRONMENTAL PROTECTION AGENCY RESOURCES AGENCY", and "CALIFORNIA WATER QUALITY MONITORING COUNCIL". A search bar and navigation links for "Content", "Footer", and "Accessibility" are also present. Below the header is a blue navigation menu with buttons for "Home", "Safe to Drink", "Safe to Swim", "Safe to Eat Fish", "Ecologic Health", "Stressors & Processes", and "Contact Us". The main content area is titled "Welcome to My Water Quality" and features a central text block: "This web portal, supported by a wide variety of public and private organizations, presents California water quality monitoring data and assessment information from a variety of perspectives that may be viewed across space and time." Below this are five question-based sections, each with a small image and a "More >>" link:

- IS OUR WATER SAFE TO DRINK?**: Accompanied by an image of a woman drinking from a glass. Text: "Safe drinking water depends on a variety of chemical and biological factors regulated by a number of local, state, and federal agencies. [More >>](#)"
- IS IT SAFE TO SWIM IN OUR WATERS?**: Accompanied by an image of a person surfing. Text: "Swimming safety of our waters is linked to the levels of pathogens that have the potential to cause disease. [More >>](#)"
- IS IT SAFE TO EAT FISH AND SHELLFISH FROM OUR WATERS?**: Accompanied by an image of a fish. Text: "Aquatic organisms are able to accumulate certain pollutants from the water in which they live, sometimes reaching levels that could harm consumers. [More>>](#)"
- ARE OUR AQUATIC ECOSYSTEMS HEALTHY?**: Accompanied by an image of birds in a wetland. Text: "The health of fish and other aquatic organisms and communities depends on the chemical, physical, and biological quality of the waters in which they live. [More>>](#)"
- WHAT STRESSORS AND PROCESSES AFFECT OUR WATER QUALITY?**: Accompanied by an image of a water body with a grid overlay. Text: "Beneficial uses of our waters are affected by emerging contaminants, invasive species, trash, global warming, acidification, pollutant loads, and flow. [More>>](#)"

 On the left side, there is a blue sidebar with a "GOVERNOR SCHWARZENEGGER" profile and a list of links: "Visit his Website", "Ca/EPA", "The Resources Agency", "About the California Water Quality Monitoring Council", "State & Regional Water Boards", "Web Portal Partners", "Monitoring Programs, Data Sources & Reports", "Water Quality Standards, Plans and Policies", "Regulatory Activities", "Enforcement Actions", "Research", "About SWAMP", and "SWAMP Tools". At the bottom of the sidebar is the SWAMP logo: "SWAMP Surface Water Ambient Monitoring Program". The footer of the page contains links for "Back to Top", "Help", "Contact Us", and "Site Map".

- 2) Each portal should inform a wide range of audiences, including the general public, agency decision makers, legislators, and scientists.
- 3) The portal home page should present several more detailed questions that act as links to additional pages in the portal which present targeted assessments and summaries of monitoring data. See the “Questions Answered” box on the page

http://www.waterboards.ca.gov/mywaterquality/safe_to_swim/, shown below. The California map on the portal home page may also serve to provide place-based links to these more detailed questions. For example, as shown below, the map provides links to these questions for each county, ecoregion, and/or other state division.

The screenshot shows the homepage of the California Water Quality Monitoring Council. The header includes the logo for the State of California Environmental Protection Agency and the Council. Navigation tabs include Home, Safe to Drink, Safe to Swim, Safe to Eat Fish, Ecologic Health, Stressors & Processes, and Contact Us. A search bar is located in the top right corner.

The main content area is titled "Is It Safe to Swim In Our Waters?". It features a map of California with a "Show County Info" dropdown menu set to "Monterey County". A pop-up window for Monterey County lists the following links:

- [beach closure information](#)
- [bacterial impairment listings](#)
- [bacterial sampling data](#)
- [beach improvement projects](#)

To the right of the map, there is a section titled "View Monitoring and Assessment Information" with the following instructions:

- Click on a county or;
- Select from the Show County Info menu.

Below this is a section titled "QUESTIONS ANSWERED" with a list of questions:

- Can I swim at my beach, lake, or stream?
- How clean was my beach, lake, or stream during the past week or month?
- What are the long-term trends at my beach, lake, or stream?
- Which beaches, lakes, and streams are currently closed by county health agencies?
- Which beaches, lakes, and streams are listed by the State as impaired?
- Are the problems getting better?

- 4) Phrase questions in the straightforward manner the public would likely ask them.
- 5) It is acceptable to ask questions that cannot currently be answered directly. In such cases, either present available monitoring and assessment information that is germane to the question or describe the nature of the data gap and what is being or could be done to fill it. Each portal should clearly identify what is known and not known about the water quality or aquatic ecosystem health theme, with the purpose of identifying, focusing, and motivating efforts to improve monitoring and assessment programs.
- 6) Present multiple ways to view and interpret monitoring data by including different assessments made by appropriate agencies and organizations (for example, report cards, numbers and trends of exceedances, derived risk measures, indices of habitat or ecosystem health, neutral data summaries). If multiple reputable assessment approaches or thresholds have been published, it is desirable to present these, as long as the portal includes explanations of these different assessment perspectives and their relevance to each of the portal's questions. This information should be provided in terms the public can readily understand.
- 7) Clearly communicate who is responsible for the monitoring programs and assessments presented in each portal map or data display, why each assessment has been made, its

relationship to each question in the portal, and what decisions the assessment supports (see #6, above). Displaying logos of the responsible organizations on the pages where their work resides is encouraged.

- 8) A statewide assessment perspective should be presented whenever possible, even when there are data gaps or uncertainties, as long as these are clearly described (see #5, above).
- 9) Each workgroup is to review existing assessments and their underlying monitoring programs in its theme area and provide critical review and comment (e.g., biases, data gaps, redundancies, comparability issues). A summary of those comments should be presented in the portal. A detailed critique should be sent to the agencies/organizations responsible for the assessments to encourage improvement over time. The performance measures provided in the [December 2008 Monitoring Council recommendations report](#) (see Section 2.1.2 and Appendix 3) should be used to structure the evaluations. Evaluations are to be presented to the Monitoring Council prior to release.
- 10) On the home page or in a prominent manner, each portal should communicate that it is a work in process, initially showing what data are readily available, with the goal of adding information as it becomes made available. An invitation to provide comments should be included. [The comment link is "Contact the SB 1070 Coordinator with your comments and suggestions." with "SB 1070 Coordinator" linked to <mailto:SB1070Coordinator@waterboards.ca.gov>.]
- 11) Provide definitions of technical terms in the form of pop-up definitions or links to the appropriate background information pages.
- 12) Include background information on applicable laws, regulations, standards, policies, guidelines, regulatory activities, enforcement activities, and research that are appropriate to the theme of the portal. In some portals, these are featured as left navigation bar links.
- 13) Include information about the sources of water quality and aquatic ecosystem health problems and the associated risks, threats and impacts on human health, natural resources, and/or ecosystems. In some portals, these are featured as left navigation links.

Layout and Format

- 14) The "Is it safe to swim in our waters?" portal (http://www.waterboards.ca.gov/mywaterquality/safe_to_swim/) should be viewed as a template for other them-based portals.
- 15) Beginning with the portal main or home page, maps and graphic representations of data and assessments should be emphasized in the main page content area.
- 16) Background information is featured as left navigation bar links and as hyperlinks within the main page content area.
- 17) Wherever possible, allow the user to access and download the raw monitoring data on which the assessments are based. For example, the Trends page on the "Is it safe to swim in our waters?" portal and the Data & Trends page on the "Is it safe to eat fish and shellfish from our waters?" portal (http://www.waterboards.ca.gov/mywaterquality/safe_to_swim/trends/ and http://www.waterboards.ca.gov/mywaterquality/safe_to_eat/data_and_trends/; user name = cwqmc; password = council) provide direct access to bacterial indicator data. Adding a link to download these data (e.g., as an Excel spreadsheet) for a selected beach or set of selected beaches would further improve this feature. Examples of such downloads are on the SWAMP-Moss Landing website at <http://swamp.mpsl.mlml.calstate.edu/online->

[data/year-1-lakes-fish-contaminant-study](#). Note that the spreadsheets provide filtering tools for each column heading.

- 18) Units, scales of measurement, and chemical names should be consistent throughout the portal.
- 19) Where possible, use page formats and colors similar to those of existing My Water Quality portals developed by other Monitoring Council workgroups to provide consistent look and feel.
- 20) The following core page features should be common to all portal pages:
 - a) A link to return to the main My Water Quality home page (<http://www.waterboards.ca.gov/mywaterquality/>) to provide access to the other portals. In the Safe-to-Swim and Safe-to-Eat portals, this is accomplished via the tabs across the top of the page. The My Water Quality button may be used for this function.



- b) A link to the workgroup information page (see http://www.waterboards.ca.gov/water_issues/programs/monitoring_council/index.shtml#workgroup). In some portals, this is done via the left navigation link "Monitoring Programs, Data Sources & Reports".
- c) A link to the Monitoring Council information page (http://www.waterboards.ca.gov/water_issues/programs/monitoring_council/). In some portals, this is accomplished via the words "CALIFORNIA WATER QUALITY MONITORING COUNCIL" in the banner at the top of the page.
- d) A link to the Contact Us page (http://www.waterboards.ca.gov/mywaterquality/contact_us/), which provides information on portal roll-out and a place to ask questions and provide comments. In the some portals, this is done via the right tab at the top of the page.

Process

- 21) Portals are products of the theme-based workgroups.
- 22) The Monitoring Council will review and approve questions, assessment products, and portal mock-ups prior to portal development. These should be presented to the Monitoring Council as a mock-up of main portal pages.
- 23) New assessments (ones not formally made by agencies/organizations) presented in a portal are products of the theme-based workgroup. Monitoring Council review and approval is required if new assessments are expected to be controversial. A test-phase assessment map or data presentations may be included in a portal prior to full workgroup agreement if it is clearly labeled as such with a mechanism inviting comments and suggestions from portal users.
- 24) Technical issues with the performance of maps and other web page displays are to be corrected prior to portal release. Address any GIS and web standards published by participating state agencies and the California Office of the Chief Information Officer.

- 25) Consider convening one or more focus groups to review and comment on draft versions of the portal before public release.